

Aero Design Ltd.

Work Order Control Sheet

Work Order#: 2016-01 Date Opened: 04 Jan 2016 Title: Fabrication

Aircraft OEM: Eurocopter Aircraft Model: AS350/355 Product Type: Cargo Basket & Lid Product Model: XL Quantity: 1 / 1 (Modified)

Work Order Contents

	Initial or N/A
Work Order/Build Sheets (Procedures Provided)	JC
Additional Work Sheets (Standard Practice)	N/A
Drawings (See List Below)	JC
Parts Distribution Sheet	JC
Sub Component Tags	N/A
Completed Certification	N/A
Time Sheet (R&D)	N/A
Notes	N/A

Build Sheet Contents

	Initial or N/A
Tasks Initialled	JC
Dual Inspections Initialled	JC

Drawing List

Drawing #	Rev #	Description	Initial or N/A
94011	1	Body	JC
94012	1	Lid	JC
70405	4	Lid Walkway	JC
84262	2	Basket Handle Prov.	JC
84263	0	Lid Handle Provisions	JC
94090	0	Basket Body Mod.	JC
94091	0	Basket Lid Mod.	JC

Traveller

Initial or N/A

Component Completion

	As Instructed
Quantity Complete on This Work Order	1 / 1
Quantity Incomplete on This Work Order	N/A
Further Processing Required Before Release	N/A
Release to Stock as Components	N/A

Certification

	Initial or N/A
Form One Completed	N/A
Serviceable (Green) Tag Completed	N/A
In Process (Yellow) Tag Completed	JC
Unserviceable (Red) Tag Completed	N/A
Parts Tracking (White) Tag Completed	N/A
Parts Placed in Stores for Distribution	N/A

Additional Documentation

	Initial or N/A
Documentation of a minor change	N/A
Non-Conformance Report Required	N/A
Service Difficulty Report Required	N/A

Billing

	Initial or N/A
Local (Aero Design)	JR
Research and Development	N/A
Third Party	N/A

Work performed by:

Print: J. Clarke

Sign: 

SCA: AD02

Date: 10-Feb-16

ICC / Dual Inspection performed by:

Print: J. Rekve

Sign: 

SCA: AD01

Date: 12-Feb-16

Work Order closed by:

Print: J. Clarke

Sign: 

SCA: AD02

Date: 02-Mar-16

Approved Manufacturing Facility 73-04

Form 20.03

Rev. Original 23 Sep 2014

**Aero Design Ltd.**

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AMF 73-04

Nomenclature: BASKET LID No. of pieces: 1Manufacturer: AERO DESIGNPart No.: 94001X. 94012-01 Serial/Batch No.: NSNTTSN: N/A TSO: N/A Rem.: N/AWork Order No.: 2016-01Remaining Tasks to be Performed: POWDER COATING ✓ JE.Signature: /// C.R.L.Date: 12 FEB 2016 Lic. No. / SCA AD 02

Form# 20.E.03

Rev. 1 24 April 2014

In Process**Aero Design Ltd.**

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AMF 73-04

Nomenclature: BASKET BODY No. of pieces: 1Manufacturer: AERO DESIGNPart No.: 94011-01 Serial/Batch No.: NSNTTSN: N/A TSO: N/A Rem.: N/AWork Order No.: 2016-01Remaining Tasks to be Performed: POWDER COATING ✓ JE.Signature: /// C.R.L.Date: 12 FEB 2016 Lic. No. / SCA AD 02

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AMF 73-04

In Process

Remarks

MODIFIED IAW 94092



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AMF 73-04

In Process

Remarks

MODIFIED IAW 94091

CARGO BASKET LID FABRICATION - COMMON

2016-01

AS350 XL

MODIFIED PER DWG 94092 R0

General

These instructions apply to all cargo basket lid assemblies. Refer to the following drawings, at the current revision, for dimensions and details:

Bell 206L/407 – Right side only

69812, Revision 3 – Standard Low Mounted Basket; Extra-Wide Low Mounted Basket

94612, Revision 0 – Extra-Wide Low Mounted Ski Basket

76612, Revision 0 – High Mounted Ski Basket

Eurocopter AS350/AS355 – left or right

77612, Revision 1 – Short Basket

69812, Revision 3 – Medium Basket (left and right)

78412, Revision 2 – Long Basket

→ 94012, Revision 0 – Extra Large (ski) Basket

Robinson R44 – left or right

90612, Revision 0 – Standard Basket (left or right)

Bell 206B – right side only

80212, Revision 0 – Short Basket

80312, Revision 0 – Medium Basket

81112, Revision 0 – Long Basket

Bell 429 – right or left

95912, Revision 0 – Standard Basket

Bell Medium – left or right

75112, Revision 0 – Standard Basket

95512, Revision 0 – Extra Large (ski) Basket

MD600

82812, Revision 0 – Standard Basket

Options

→ 70405, Revision 3 – Walkway

70402, Revision 1 – Lid Door

CARGO BASKET LID FABRICATION

Complete
(initial or SCA #)

Work Order: 2016-01

Date Open: 04 JAN 2016

1. Rim Assembly – Basket Lid

AD02

- a. Cut and fit $\frac{3}{4}$ " x 0.035 material to fit rim jig, 45 degree ends.
 - i. 1 or 2 lid prop bushing holes in short tube – refer to drawing
- b. Record material PO on attached material list.
- c. Remove writing on tubes with acetone and scotch bright.

2. Weld Rim Assembly

AD-05

- a. Record welding rod PO on attached material list.

3. Inspection

AD02

- a. Rim for complete welds

4. Frame assembly – Lid

AD02

- a. General
 - i. Vent holes shall be #30 (0.129), and located inside the structure wherever possible to allow venting of weld gasses through existing holes (i.e. lid prop bushing)
- b. Insert rim from step 2 into jig.
- c. Cut and fit $\frac{3}{4}$ " x 0.035 material, 21" long, for lid cross members.
- d. Record material PO on attached material list.
- e. Remove writing on tubes with acetone and scotch bright.
- f. Drill vent holes into rim to vent cross members into rim.
- g. Locate cross members in lid rim. Refer to drawing for spacing of cross members. Clamp cross members with C-clamps to jig.

5. Frame assembly – Lid with optional walkway modification

AD02

- a. Fit cross members to rim in accordance with step 4.
- b. Attach walkway jig with C-clamps. Ensure correct orientation of rim, refer to drawing.
- c. Cut $\frac{1}{2}$ " x 0.035 material for walkway stringers to fit between lid cross members. Record material PO on attached material list.
- d. Drill vent holes into cross members at walkway stringers.
- e. Align walkway stringers on walkway jig using cleco clamps near both ends of each stringer, and clamp stringer to jig using a C-clamp in the centre.

6. Weld frame assembly.

AD-05

- a. Record welding rod PO on attached material list.
- b. Jigs must remain in place for as long as practical during welding.

7. Inspection

AD02

- a. Frame assembly for complete welds.

CARGO BASKET LID FABRICATION

Complete
(initial or SCA #)

AD02

8. Mesh assembly.

Note: 95912 (Bell 429) does not have mesh. Skip to step 10.

- a. Pull sheet of expanded mesh from stock. Record material PO on attached material list.
- b. Cut mesh to size for lid.
- c. Remove surface rust with scotch-brite.
- d. Ensure lid is prepared for mesh on the correct side.

9. Weld mesh to frame assembly per drawing.

AD-05

- a. General welding requirements for all lids:
 - i. Every intersection on all edges.
 - ii. First 5 intersections along cross members, then every second intersection.
- b. MIG weld both short sides.
- c. Clamp lid over spacer at centre of lid to pre-tension mesh.
 - i. $\frac{3}{4}$ " for lids under 76"
 - ii. 1" (check) for lids over 76"
- d. Weld remainder of mesh as indicated in a.
- e. Record welding rod PO on attached material list.

10. Weld lid components.

AD-05

- a. Handle brackets, locate in accordance with drawing.
 - i. Standard location: $\frac{1}{4}$ " outside of last cross member on both ends.
 - ii. Record handle bracket WO and welding rod PO on attached material list.
- b. Lid prop bushing(s).
 - i. one or two in accordance with drawing.
 - ii. Record lip prop bushing WO and welding rod PO on attached material list.
- c. Placard bracket. – not installed on 95912 (Bell 429)
 - i. Locate on cross member to set bracket in centre bay of lid.
 - ii. Record placard bracket WO and welding rod PO on attached material list.

11. Clean up

AD02

- a. Grind high spots off mesh welds.
- b. Tighten mesh using special pliers. Tighten enough to remove "oil canning", where mesh springs in or out.
- c. Straighten lid using frame attached under welding table. Work carefully, avoid excessive force to prevent kinking rim tubes.
- d. Drill #9 through lid prop bushing(s). De-burr hole(s).
- e. Drill for lid bumpers using $\frac{1}{4}$ " (#3) centre drill.
 - i. 3 places for lids under 76"
 - ii. 4 places for lids over 76"
- f. Remove surface rust with scotch-brite pad.

12. Final Inspection

To be completed by a different person than the previous steps.

AD01

- a. Basket lid assembly for complete welds, and required minimum mesh weld locations.
- b. Material lists complete.
- c. Overall condition and conformity to drawing(s).

CARGO BASKET LID FABRICATION

Complete
(initial or SCA #)

Ador

13. Powder Coating

- a. Parts are to be powder coated white in accordance with commercial practices.
- b. Record powder coating PO.
- c. Inspect powder coating on receiving.
- d. Tag lid assembly and place into stock in preparation for assembly.

CARGO BASKET BODY FABRICATION - COMMON

2016-01

AS350XL

MODIFIED PER DWG 94091 R0

General

These instructions apply to all cargo basket body assemblies. Refer to the following drawings, at the current revision, for dimensions and details:

Bell 206L/407 – Right side only

69811, Revision 3 – Standard Low Mounted Basket

94511, Revision 0 – Extra-Wide Low Mounted Basket

94611, Revision 0 – Extra-Wide Low Mounted Ski Basket

76611, Revision 0 – High Mounted Ski Basket

Options 70404, Revision 2 – Front end cutout – 698

70411, Revision 0 – Front end cutout – 945/946

Eurocopter AS350/AS355 – left or right

77611, Revision 1 – Short Basket

76411, Revision 3 – Medium Basket (left or right)

78411, Revision 2 – Long Basket

94011, Revision 0 – Extra Large (ski) Basket

Options 70406, Revision 2 – Front end cutout – 764/776/784/940

Robinson R44 – left or right

90611, Revision 0 – Standard Basket (left or right)

Bell 206B – right side only

80211, Revision 0 – Short Basket

80311, Revision 0 – Medium Basket

81111, Revision 0 – Long Basket

Options 70406, Revision 2 – Front end cutout – 802/803/811

Bell 429 – right or left

95911, Revision 0 – Standard Basket

Bell Medium – left or right

75111, Revision 0 – Standard Basket

95511, Revision 0 – Extra Large (ski) Basket

Options 70407, Revision 1 – Front end cutout – 751

704, Revision – Front end cutout – 955

MD600

82811, Revision 0 – Standard Basket

Options – Applicable to all models

70403, Revision 5 – Auxiliary Latch

CARGO BASKET BODY FABRICATION - COMMON

Complete
(initial or SCA #)

Work Order: 2016-01

Date Open: 04 JAN 2016

1. Rim Assembly – Basket Body

AD02

- a. Cut and fit $\frac{3}{4}$ " x 0.035 material to fit rim jig.
 - i. 1 or 2 lid prop bushing holes in short tube – refer to drawing
- b. Record material PO on attached material list.
- c. Remove writing on tubes with acetone and scotch bright.
- d. For extra large baskets – drill #30 (0.129) vent holes to vent stringer tubes into rims.
- e. 94611 (206L/407 XL ski) only – drill for 4 threaded bushings before assembling rim.

2. Weld Rim Assembly.

AD-05

- a. Record welding rod PO on attached material list.
- b. 94611 (206L/407 XL ski) only – weld 4 threaded bushings into inboard rim tube.

3. Inspection

AD02

- a. Rim for complete welds

4. Frame assembly – body

AD02

- a. General
 - i. Vent holes shall be #30 (0.129), and located inside the structure wherever possible to allow venting of weld gasses through existing holes (i.e. lid prop bushing, hoops, etc.)
- b. Grind corner welds from step 2 on rim to allow hoops to sit flat.
- c. Pull required hoops from stock - standard, attachment, handle.
 - i. If hoops are not in stock see detailed procedure sheet for specific hoop fabrication.
 - ii. Ensure vent hole is located at centre of tube to vent spine tubes.
- d. Assemble hoops with attachment lug locating jig and hoop spacing jig.
 - i. Ensure correct order and orientation of hoops. Refer to drawing.
 1. Attachment lugs are on inboard side.
 2. Handle bracket bushings are on outboard side, second hoop from both ends.
May be on attachment hoops.
 - ii. Run 3/8-24 tap into attachment lugs to ensure clear threads.
 - iii. Bolt attachment lug locating jig to attachment hoops with 3/8-24 bolts.
 - iv. Attach inboard and outboard hoop spacing jigs to all hoops using 1" C-clamps. Raise jigs approximately 2" off table to allow room to weld around hoops.
 - v. Attach bottom (spine) jig to all hoops using 1" C-clamps along the centre line of the basket. Ensure jig is straight prior to tightening all clamps.
- e. Cut $\frac{1}{2}$ " x 0.035 material to fit spine jig.
- f. Cut $\frac{1}{2}$ " x 0.035 material for strut to fit from lower inboard attachment to upper outboard rim.
 - i. Refer to applicable drawing for position, not required on some baskets.
- g. Option: Cut $\frac{1}{2}$ " x 0.035 material for front end cutout. Record material PO on attached material list.
- h. 90611 (R44) only: Cut $\frac{1}{2}$ " x 0.035 material to fit front end structure. Record material PO on attached material list.
- i. Drill vent holes into attachment hoop and/or rim to vent strut(s) and front end cutout.

CARGO BASKET BODY FABRICATION - COMMON

Complete
(initial or SCA #)

- j. Record hoop WOs and material POs on attached material list.
- k. Remove writing on tubes with acetone and scotch bright.
- l. Insert rim assembly into jig and set frame assembly onto rim. Ensure correct orientation of lid prop bushings in rim to frame. Bushing hole must be closer to attachment side.
- m. Align hoops to rim in accordance with drawing. General positions:
 - i. Extra large baskets
 - 1. inboard side of hoops (attachment side) aligns to OUTSIDE of rim
 - 2. outboard side of hoops (handle side) aligns to INSIDE of rim
 - 3. forward and aft hoops align to INSIDE of rim
 - ii. All other baskets
 - 1. inboard side of hoops (attachment side) aligns to INSIDE of rim
 - 2. outboard side of hoops (handle side) aligns to INSIDE of rim
 - 3. forward and aft hoops align to INSIDE of rim, except R44

5. TIG weld frame to rim assembly.

AD-05

- a. Ensure lug locating jig and hoop locating jigs are in place. Jigs must remain in place for as long as practical during welding.
- b. Strut tubes and front end cutout (see step 4.f. and g.) must be welded in place after the hoops are welded to the rim. Jig(s) must be in place prior to welding strut tubes.
- c. Robinson R44 (90611) requires fitting and welding of forward end after remainder of basket frame is welded. Use jig to support front hoop.
- d. Record welding rod PO on attached material list.

6. Inspection

AD02

- a. Frame assembly for complete welds.

7. Mesh assembly.

AD02

- a. Pull sheet of expanded mesh from stock. Record material PO on attached material list.
- b. Cut mesh to size for body.
- c. Remove surface rust with scotch-brite.
- d. Bend body mesh – use table with bend markings on top. Lock wheels on table.
 - i. For extra wide baskets only –
 - 1. Set $\frac{3}{4}$ " angle along edge of table under mesh sheet. Set 1.5" square tube on top of mesh aligned with angle on edge of table. Clamp in place with 6" C-clamps.
 - 2. Bend upper edge of sheet just past a cell intersection to make a flange 2.5" - 3.25" wide. Closer to 2.5" is preferred, full cell intersection on flange side at bend is required.
 - 3. Bend down by hand as far as possible, then use a hammer to flatten the bend tight against the angle on the edge of the table.
 - ii. Using markings on table, align sheet to indicated edge.
 - iii. Using markings on table, align 3" tube to required position and clamp tube in place.
 - iv. Bend mesh by hand tightly over tube along length of tube.
 - v. Keeping mesh in place, un-clamp 3" tube, move to other position and clamp tube in place.
 - vi. Bend mesh by hand tightly over tube along length of tube.
- e. Install attachment lug jig onto basket frame.

- f. Ensure end struts are welded in basket frame if required by the drawing.
- g. Insert mesh into basket.
 - i. General
 1. Some cells may interfere with correct positioning, especially at the upper corners and around struts. Bend cell(s) in as required, do not cut cells off.
 2. Ideally welds will be located on mesh intersections. Shift mesh if possible to minimize welds located off mesh intersections.
 3. Ensure mesh reaches all edges of basket BEFORE trimming. Regardless of progress in clamping, remove clamps and shift mesh if required.
 4. Ensure cleco clamps are placed from the inside of the basket to allow removal during welding. Cleco clamps may be used from the outside during fitting, but must be removed prior to welding.
 - ii. Extra large baskets only – seat corner of mesh with flange into inboard upper corner of frame. Use C-clamps on edge of flange as required to maintain tight fit.
 - iii. Starting at inboard top edge of basket, clamp mesh to hoop near top rim using cleco clamps onto hoops. For regular size baskets, edge of mesh should sit approximately half way up rim tube.
 - iv. Working down the inboard side, clamp mesh to hoops with cleco clamps. Clamp down into radius of hoop and continue clamping as required to maintain tight fit in corner of hoop. After the corners are tight, two clamps just onto the radius on both ends should be sufficient to hold the corner tight, remove all extra clamps.
 - v. Clamp mesh to spine in at least 1 place per section.
 - vi. Working up the outboard side, clamp the mesh into the radius of hoop and continue clamping as required to maintain tight fit in corner of hoop. After the corners are tight, 2 clamps just onto the radius on both ends should be sufficient to hold the corner tight, remove all extra clamps.
 - vii. Trim upper outboard edge of mesh if required, edge of mesh must be low enough on rim tube to prevent the weld from protruding above the edge of the rim. Some sheets are tapered and may require ½ to 1 cell to be removed over some or all of the length of the basket. De-burr cut edges with a sanding disc on a die-grinder. Straighten cut cells with duck-bill pliers. Clamp mesh near upper edge to hoops with cleco clamps after trimming.
 - viii. Trim ends to land on hoops, at mesh intersections if possible.
- h. Cut mesh to fit ends. Record material PO on attached material list.
 - i. Remove surface rust with scotch-brite.
 - ii. Ensure mesh is cut at intersections where possible.
 - iii. Bend top edge of mesh 1/8"-3/16" down at 45 degrees
 - iv. Cut for front end cutout if required.
- i. 90611 (R44) only: Cut mesh to fit upper forward end. Record material PO on attached material list.
 - i. Remove surface rust with scotch-brite.
 - ii. Ensure mesh is cut at intersections where possible.
 - iii. Bend top edge of mesh 1/4" down at 60 degrees.
 - iv. Fit mesh to front end of basket.

CARGO BASKET BODY FABRICATION - COMMON

Complete
(initial or SCA #)
AD-05

8. Weld mesh to frame assembly per drawing.

- a. Ensure lug locating jig is in place prior to welding.
- b. General welding requirements for all baskets, MIG welding:
 - i. Every intersection at top edges.
 - ii. Every intersection at ends.
 - iii. First 5 intersections down on hoops, then every second intersection.
 - iv. Every intersection along spine.
 - v. Extra large baskets – every intersection along corner.
 - vi. Every intersection around ends
 - vii. Every intersection along struts (if applicable)
- c. Bend and trim cells bent in to fit mesh as required and weld in position.
- d. Grind high spots off body mesh welds on ends before welding end mesh.
- e. 90611 (R44) only – weld lid prop bushing (step 9) into rim BEFORE welding upper mesh on forward end of basket assembly.
- f. Record welding rod PO on attached material list.

9. Weld basket components

- a. TIG weld lid prop bushing(s), one or two per drawing.
 - i. Record welding rod PO on attached material list.
 - ii. Record lip prop bushing WO on attached material list.
- b. TIG weld caps to close top of 1" hoops as applicable.
- c. 94611 (Bell206L/407 XL ski) only: cut rim over cross tube gap.
 - i. Cut inboard rim on aft end. Grind flush with hoops.
 - ii. TIG weld caps on open tubes.
 - iii. Record cap material PO on attached material list.
- d. 95911 (Bell 429) only: placard bracket to forward upper corner of basket.
 - i. Record welding rod PO on attached material list.
 - ii. Record placard bracket WO on attached material list.

AD-05

10. Clean up

- a. Grind high spots off mesh welds.
- b. Tighten mesh using special pliers. Tighten enough to remove "oil canning", where mesh springs in or out. Do not tighten in corners of hoops, mesh will be deformed.
- c. Drill #9 through lid prop bushing(s). De-burr hole(s).
- d. Remove surface rust with scotch-brite pad.

AD 02

11. Final Inspection

To be completed by a different person than the previous steps.

- a. Basket body assembly for complete welds, and required minimum mesh weld locations.
- b. Filled vent holes – usually on hoops
- c. Overall condition and conformity to drawing(s).
 - i. Hoops for height.
 - ii. Rim for width and length and alignment.
 - iii. Lid prop lugs in correct ends.
 - iv. Fore/aft strut in hoop if required by drawing.
- d. Material lists complete.

AD01

CARGO BASKET BODY FABRICATION - COMMON

Complete
(initial or SCA #)

- e. Tag complete basket body assembly in preparation for powder coating.

ADD2

12. Powder Coating

- a. Parts are to be powder coated white in accordance with commercial practices.
- b. Record powder coating PO.
- c. Inspect powder coating on receiving.
- d. Tag basket body assembly and place into stock in preparation for assembly.

Work Order: 2016-01Date Opened: 04 Apr 2016

Material Tracking Sheet
Eurocopter AS350 / AS355
Extra Large Basket Body Fabrication

1 of 2

Ass'y Step	Qty	Detail Drawing	Part Number	Description	Material	POWO
	1	94011	94011-01	Basket Assembly		
Step 1				<i>Rim Assembly</i>		
	. 2		--	3/4" Tube - Long Rim (97")	4130 Steel, 3/4" x 0.035 Sqr. Tube	
	. 2		--	3/4" Tube - Short Rim (25.5")	4130 Steel, 3/4" x 0.035 Sqr. Tube	
	. 1		--	3/4" Tube - Long Stringer (95.5")	4130 Steel, 3/4" x 0.035 Sqr. Tube	
	. 4		--	3/4" Tube - Short Stringer (2.25")	4130 Steel, 3/4" x 0.035 Sqr. Tube	
Step 2				<i>Weld Rim Assembly</i>		
	. A/R		--	Welding Rod	ER70S-2 TIG Rod	
Step 3				<i>Inspection - Rim</i>	None	
Step 4				<i>Frame Assembly</i>		
	. 4		94030-01	Hoop - standard	4130 Steel, 1/2" x 0.035 Sqr. Tube	
	. 2		94023-01	Hoop - attachment		
	. 5		--	1/2" Tube - spine	4130 Steel, 1/2" x 0.035 Sqr. Tube	
Step 4.g.		70406	70406-01	<i>Option: Front End Cutout</i>		
			70406-03	1/2" Tube	4130 Steel, 1/2" x 0.035 Sqr. Tube	
			70406-04	1/2" Tube	4130 Steel, 1/2" x 0.035 Sqr. Tube	
Step 5				<i>Weld Frame Assembly</i>		
	. A/R		--	Welding Rod	ER70S-2 TIG Rod	
Step 6				<i>Inspection - Frame Assembly</i>	None	
Step 7				<i>Mesh Assembly</i>		
	. 1		--	Mesh (Body - 56" x 96")	3/4-16F Expanded Mild Steel sheet	
	. 2		--	Mesh (End - 25" x 18")	3/4-16F Expanded Mild Steel sheet	

Work Order: 2016-01Date Opened: 04 JAN 2016Material Tracking Sheet
Eurocopter AS350 / AS355
Extra Large Basket Body Fabrication

2 of 2

Ass'y Step	Qty	Detail Drawing	Part Number	Description	Material	POWO
Step 8				<i>Weld Mesh</i>		
	. A/R		--	Welding Rod	ER70S-6 MIG Wire	
Step 9				<i>Weld Basket Components</i>		
	. 2		49215-01	Spacer (Lid prop)	304 Stainless Steel, ½" Dia.	
	. A/R		--	Welding Rod	ER308L TIG Rod	
Step 10				<i>Clean Up</i>	None	
Step 11				<i>Inspection - Final Assembly</i>	None	
Step 12				<i>Powder Coating</i>		

Work Order: 2016-01Date Opened: 04 JAN 2016

Material Tracking Sheet
Eurocopter AS350 / AS355
Extra Large Lid Fabrication

1 of 2

Ass'y Step	Qty	Detail Drawing	Part Number	Description	Material	POW/O
	<u>1</u>	94012	94012-01	Lid Assembly		
Step 1				<i>Rim Assembly</i>		
	. 2		--	3/4" Tube - Long Rim (97")	4130 Steel, 3/4" x 0.035 Sqr. Tube	
	. 2		--	3/4" Tube - Short Rim (22.5")	4130 Steel, 3/4" x 0.035 Sqr. Tube	
Step 2				<i>Weld Rim Assembly</i>		
	. A/R			Welding Rod	ER70S-2 TIG Rod	
Step 3				<i>Inspection - Rim</i>	None	
Step 4				<i>Frame Assembly</i>		
	. 4		--	3/4" Tube - Cross Member (21")	4130 Steel, 3/4" x 0.035 Sqr. Tube	
Step 5		70405		<i>Option: Frame Assembly - with walkway</i>		
	. 10		--	1/2" Tube - walkway	4130 Steel, 1/2" x 0.035 Sqr. Tube	
Step 6				<i>Weld Frame Assembly</i>		
	. A/R			Welding Rod	ER70S-2 TIG Rod	
Step 7				<i>Inspection - Frame Assembly</i>	None	
Step 8				<i>Mesh Assembly</i>		
	. 1		--	Mesh (lid - 96" x 22")	3/4-16F Expanded Mild Steel sheet	
Step 9				<i>Weld Mesh</i>		
	. A/R			Welding Rod	ER70S-6 MIG Wire	

Work Order: 2016-01Date Opened: 04 JAN 2016Material Tracking Sheet
Eurocopter AS350 / AS355
Extra Large Lid Fabrication

2 of 2

Ass'y Step	Qty	Detail Drawing	Part Number	Description	Material	PO/WO
Step 10				<i>Weld Lid Components</i>		
	. 1	84262	84262-01	Upper Handle Bracket Assembly		
	. . 4		36273-01	Lid Bracket	321 Stainless, 0.050 Sheet	
	. . 2		36275-02	Support	304 Stainless, 5/16" Rod	
	. A/R			Welding Rod	ER308L TIG Rod	
	. 2		49216-01	Spacer (Lid prop)	304 Stainless, ½" Dia.	
	. A/R			Welding Rod	ER308L TIG Rod	
	. 1		36204-10	Placard Bracket	1018 Steel, 0.035" Sheet	
	. A/R			Welding Rod	ER70S-2 TIG Rod	
Step 11				<i>Clean Up</i>		
Step 12				<i>Inspection - Final Assembly</i>		
Step 13				<i>Powder Coating</i>		

Aero Design

Parts Distribution Sheet

Description: AS350 XL Ski
Modified

WO# 2016-01

From PO or WO #	Quantity	Description	Part Number	For WO #
2014-38	2	lid handle mounts	84363-02	
15061	1	Phcard bracket	36204-10	
2015-84	2	Spacer	49216-01	
15037	1	Mesh for lid	34-16F	
14099	1	3/4"x.035" tube		
14005	1	ER 70S welding rod.		
15059	1	70S Mig wire		
14028	1	ER308L		
2015-74	4	hoops	94030-01	
2015-74	2	transition hoop		
15015	2	1" transition hoop.		
94023-07	2	bushing	94023-07	
94023-05	2	bushing	94023-05	
14099		1/2"x3/4"x.035		
14045	Not used	1/8 Aluminum sheet	Jig for welding panels.	
16003	4'x4'	Ys 6061-T6 plate		
16003	2ell x 11	D.050 6061-T6 sheet		
15024	12 @ 3/4"	5/16"x0.035 4130 TUBE		
15024	38 @ 1/2"	BUSHING	84272-01	
15037	1	MESH (BODY)	34-16P	
2015-84	2	SPACER	49215-01	
16011	1	POWDER COAT		

1" Hoop Bend

Requirements
* Review LOED to ensure most up to date specifications.
* Cut 33 3/8. - from long end of 60° to short end of 16°
* Cut one end at 16 degrees and the other at 60 degrees.
* At the 16 degree end measure up 21 1/8 and mark. ✓
* Line up the mark on the radius of the bender and bend.
* Lower stop to 101 degree

→ maybe not, seems to be too long. ✓

→ long end to long end *

→ outside edge

* 99° from ϕ -mark on bender stop
(not far enough)

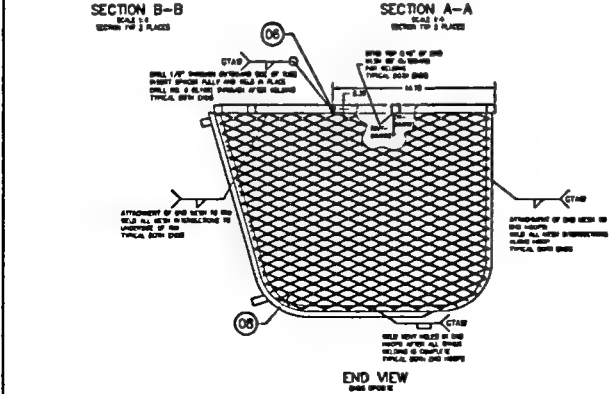
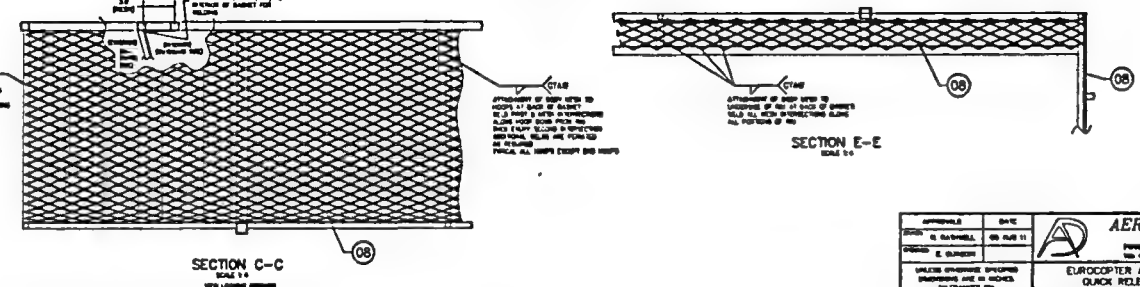
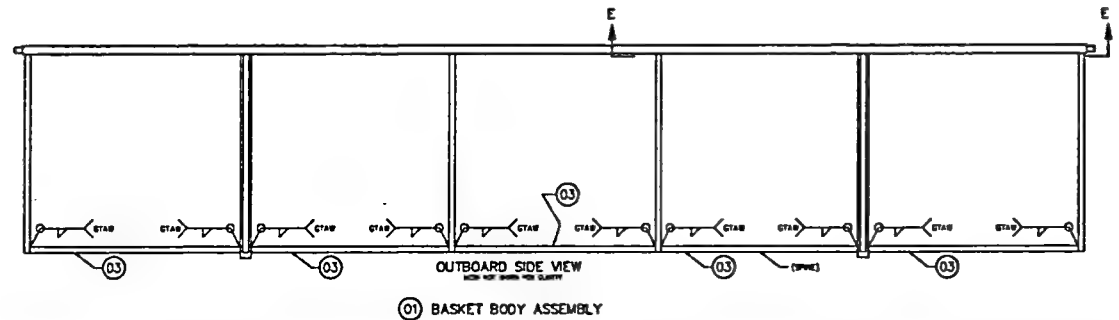
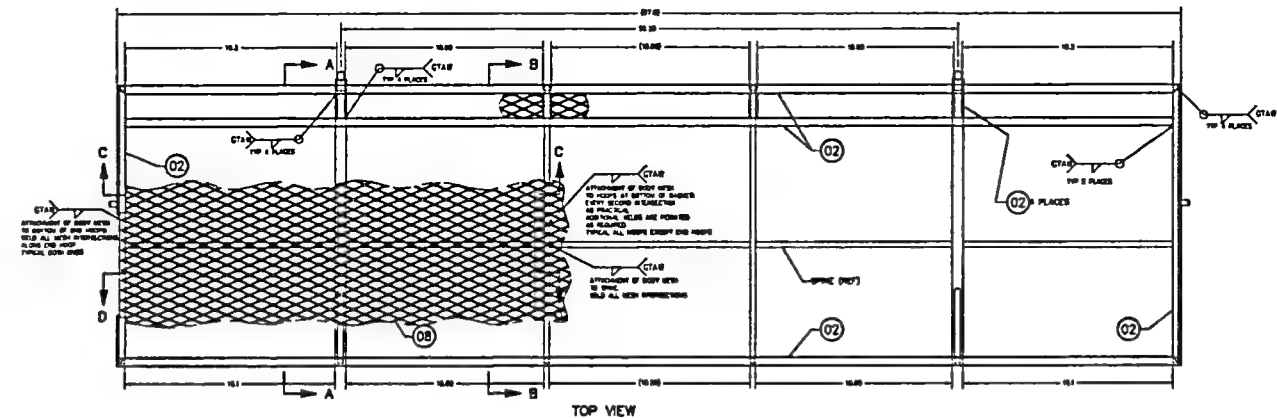
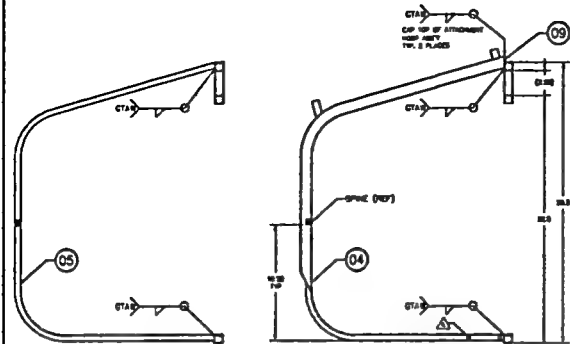
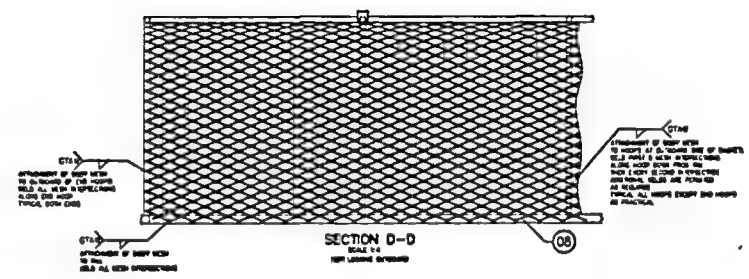
100° - for these 2 matches hoops (1 1/2")

→ line up the mark on the tube with the mark on the edge
- of the bender mandrel

60° end ~~not~~ sticking out of gripper

[illegible]

REV	DESCRIPTION	DATE	BY	CHKD
1	ISSUED FOR CONSTRUCTION OF BASKET BODY ASSEMBLY	1/15/77	W.D.	W.D.
2	REVISIONS TO BASKET BODY ASSEMBLY	1/15/77	W.D.	W.D.



- NOTES:
1. FABRICATE ALL BASKET AND BASKET BODY PARTS.
 2. FABRICATE ALL BASKET AND BASKET BODY PARTS.
 3. FABRICATE ALL BASKET AND BASKET BODY PARTS.
 4. FABRICATE ALL BASKET AND BASKET BODY PARTS.
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 9. FABRICATE ALL BASKET AND BASKET BODY PARTS.
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1	ISSUED FOR CONSTRUCTION OF BASKET BODY ASSEMBLY	1/15/77	W.D.	W.D.
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AERO DESIGN LTD.
1000 BROADWAY, NEW YORK, N.Y. 10004
TEL: (212) 691-1000
FAX: (212) 691-1001

EUROCOPTER AS350 & AS355 SERIES
QUICK RELEASE CARGO BASKET
BASKET BODY ASSEMBLY (EXTRA LARGE)

SCALE 1:1
SHEET 1 OF 1

AO 94011 1

DRILL 1/4" THROUGH BOTTOM OF RIM
4 HOLES EVENLY SPACED
LOCATED BETWEEN MESH RILLS

18.25 18.00 (18.00) 18.00 18.25

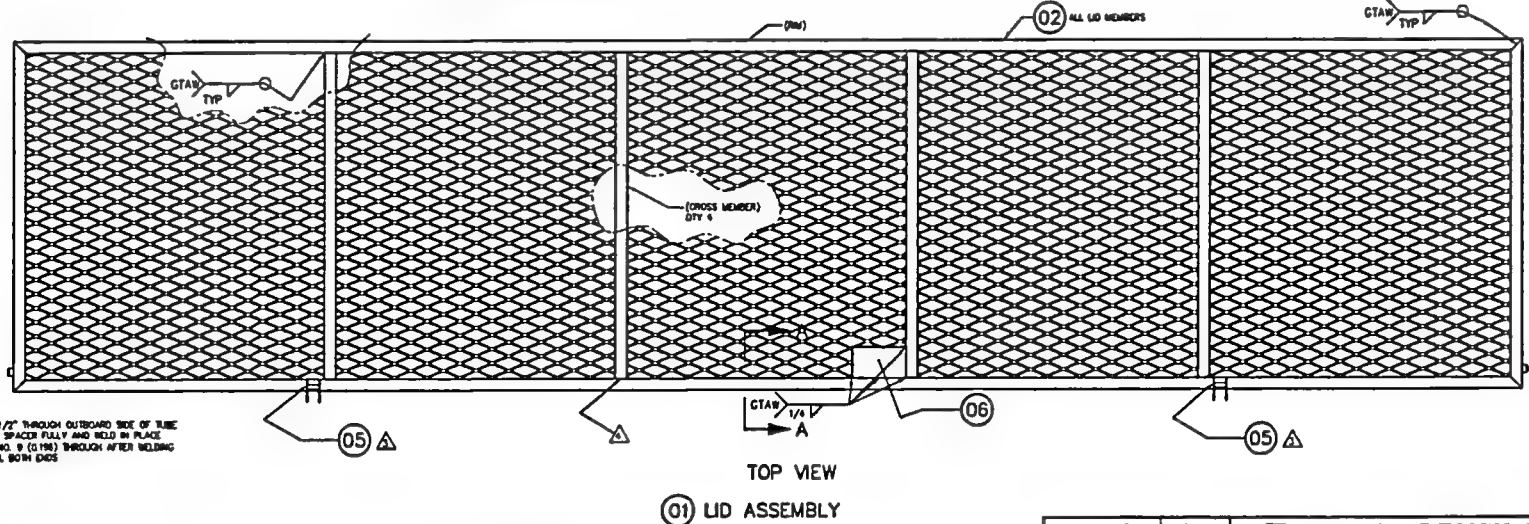
22.50

03 MESH

BOTTOM VIEW

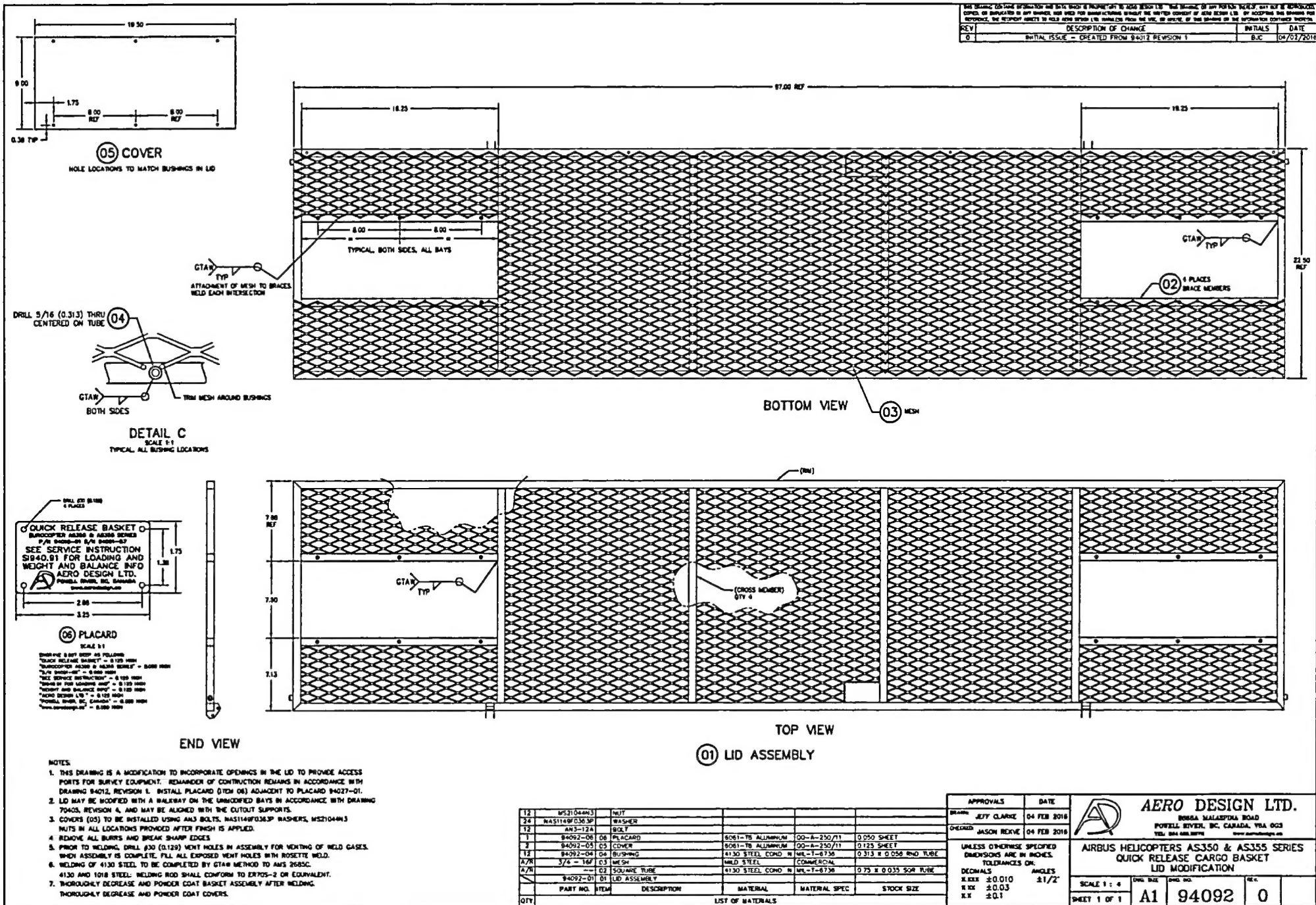
ATTACHMENT OF MESH TO RIM
WELD EACH INTERSECTION

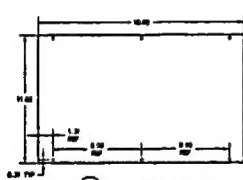
ATTACHMENT OF MESH TO CROSS MEMBERS
WELD FIRST FIVE INTERSECTIONS
THEN EVERY SECOND INTERSECTION
ADDITIONAL WELDS ARE PERMITTED AS REQUIRED



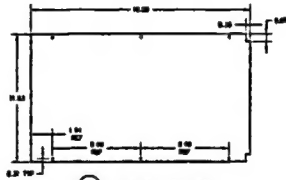
- | | | | | | | |
|-----|-------------------|------|--------------------------------|-------------------|---------------|-----------------------|
| 1 | 3634-10 | 04 | PLACARD BRACKET | | | |
| | 84463-01 | 05 | LED HANDLE PROVISIONS ASSEMBLY | | | |
| 2 | 49216-01 | 04 | SPACER | | | |
| A/R | 376 - 16F | 03 | WCSH | MILD STEEL | COMMERCIAL | |
| A/R | | 02 | SQUARE TUBE | 4130 STEEL COND N | ML-T=0.750 | 0.75 B 0.035 SQR TUBE |
| | 84012-01 | 01 | LED ASSEMBLY | | | |
| | PART NO. | ITEM | DESCRIPTION | MATERIAL | MATERIAL SPEC | STOCK SIZE |
| QTY | LIST OF MATERIALS | | | | | |

APPROVALS		DATE	 AERO DESIGN LTD. 1000A WILKINSON ROAD POWELL RIVER, BC, CANADA, V8A 0G5 TEL: 250-735-0070 FAX: 250-735-0071
SIGNED	R. BATHWELL	05 AUG 11	
DRAWN	E. BURSON		
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES. TOLERANCES ON: DECIMALS ANGLES ±.001 ±1/2° ±.002 ±.003 ±.005 ±.01			EUROCOPTER AS350 & AS355 SERIES QUICK RELEASE CARGO BASKET LID ASSEMBLY (EXTRA LARGE)
SCALE 1 : 4 SHEET 1 OF 1			DWG NO. REV. NO. A1 94012 1

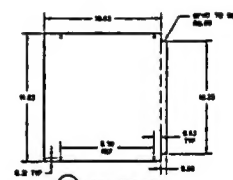




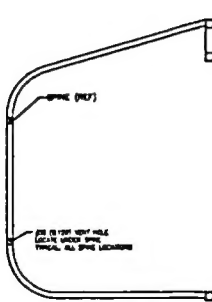
05 BOTTOM COVER
HOLE LOCATIONS TO MATCH DIMENSIONS IN SKETCH



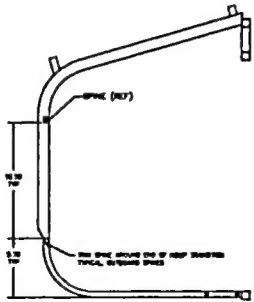
06 BOTTOM COVER
HOLE LOCATIONS TO MATCH DIMENSIONS IN SKETCH



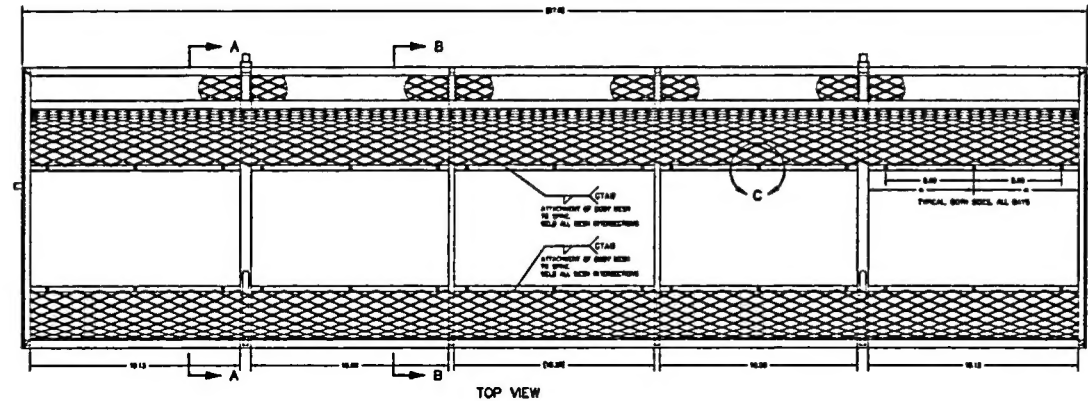
07 END COVER
HOLE LOCATIONS TO MATCH DIMENSIONS IN SKETCH



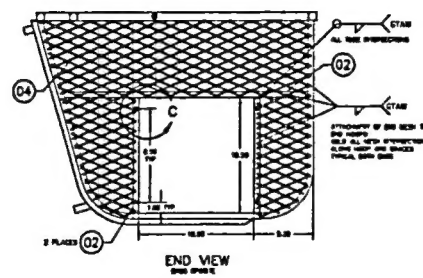
SECTION B-B
SECTION TOP & PLACES



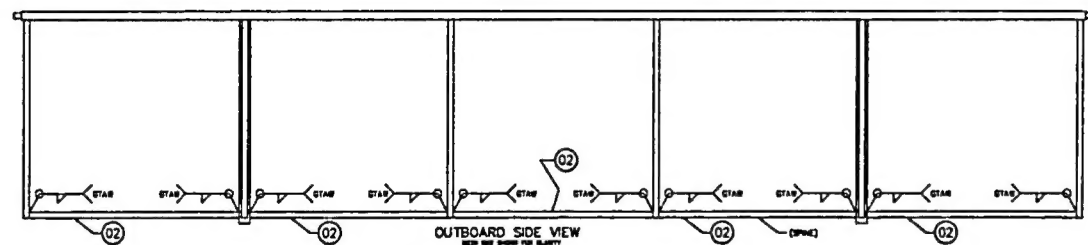
SECTION A-A
SECTION TOP & PLACES



TOP VIEW

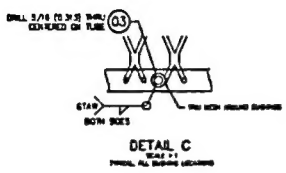


END VIEW
SPIN SPIN



OUTBOARD SIDE VIEW
SEE END VIEW FOR SKETCH

01 BASKET BODY ASSEMBLY

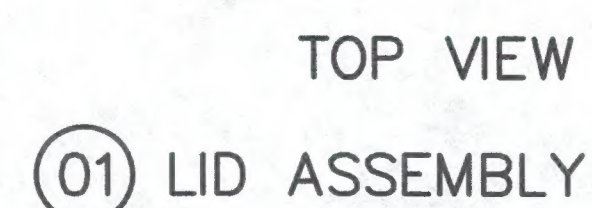
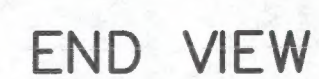
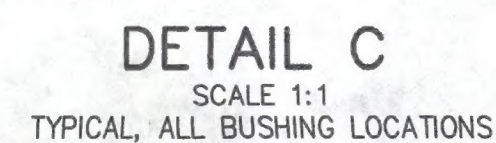


DETAIL C
TYPICAL ALL DIMENSIONS

- NOTES
1. THIS DRAWING IS A SUBSTITUTION TO SUPPLEMENTARY SKETCHES OF THE BASKET TO PROVIDE VIEW POINTS FOR BASKET DIMENSIONS. DIMENSIONS OF CONSTRUCTION DIMENSIONS IN ACCORDANCE WITH DIMENSIONING SYSTEM, REVISION 1.
 2. LARGEST DIMENSION IN ACCORDANCE WITH DIMENSIONING SYSTEM, REVISION 1, MUST BE COMPLETED TO DIMENSIONING SYSTEM, REVISION 1, OF THE DIMENSIONING SYSTEM.
 3. DIMENSIONS (SEE 01, 02) TO BE INSTALLED UNDER ALL DIMENSIONS (SEE 01, 02) DIMENSIONS.
 4. DIMENSIONS (SEE 01, 02) TO BE INSTALLED UNDER ALL DIMENSIONS (SEE 01, 02) DIMENSIONS.
 5. DIMENSIONS (SEE 01, 02) TO BE INSTALLED UNDER ALL DIMENSIONS (SEE 01, 02) DIMENSIONS.
 6. DIMENSIONS (SEE 01, 02) TO BE INSTALLED UNDER ALL DIMENSIONS (SEE 01, 02) DIMENSIONS.
 7. DIMENSIONS (SEE 01, 02) TO BE INSTALLED UNDER ALL DIMENSIONS (SEE 01, 02) DIMENSIONS.
 8. DIMENSIONS (SEE 01, 02) TO BE INSTALLED UNDER ALL DIMENSIONS (SEE 01, 02) DIMENSIONS.
 9. DIMENSIONS (SEE 01, 02) TO BE INSTALLED UNDER ALL DIMENSIONS (SEE 01, 02) DIMENSIONS.
 10. DIMENSIONS (SEE 01, 02) TO BE INSTALLED UNDER ALL DIMENSIONS (SEE 01, 02) DIMENSIONS.

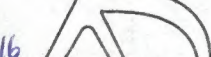
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3	REVISION 2	1990-01-01	AD		
4	REVISION 3	1990-01-01	AD		
5	REVISION 4	1990-01-01	AD		
6	REVISION 5	1990-01-01	AD		
7	REVISION 6	1990-01-01	AD		
8	REVISION 7	1990-01-01	AD		
9	REVISION 8	1990-01-01	AD		
10	REVISION 9	1990-01-01	AD		
11	REVISION 10	1990-01-01	AD		
12	REVISION 11	1990-01-01	AD		
13	REVISION 12	1990-01-01	AD		
14	REVISION 13	1990-01-01	AD		
15	REVISION 14	1990-01-01	AD		
16	REVISION 15	1990-01-01	AD		
17	REVISION 16	1990-01-01	AD		
18	REVISION 17	1990-01-01	AD		
19	REVISION 18	1990-01-01	AD		
20	REVISION 19	1990-01-01	AD		
21	REVISION 20	1990-01-01	AD		
22	REVISION 21	1990-01-01	AD		
23	REVISION 22	1990-01-01	AD		
24	REVISION 23	1990-01-01	AD		
25	REVISION 24	1990-01-01	AD		
26	REVISION 25	1990-01-01	AD		
27	REVISION 26	1990-01-01	AD		
28	REVISION 27	1990-01-01	AD		
29	REVISION 28	1990-01-01	AD		
30	REVISION 29	1990-01-01	AD		
31	REVISION 30	1990-01-01	AD		
32	REVISION 31	1990-01-01	AD		
33	REVISION 32	1990-01-01	AD		
34	REVISION 33	1990-01-01	AD		
35	REVISION 34	1990-01-01	AD		
36	REVISION 35	1990-01-01	AD		
37	REVISION 36	1990-01-01	AD		
38	REVISION 37	1990-01-01	AD		
39	REVISION 38	1990-01-01	AD		
40	REVISION 39	1990-01-01	AD		
41	REVISION 40	1990-01-01	AD		
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94	REVISION 93	1990-01-01	AD		
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99	REVISION 98	1990-01-01	AD		
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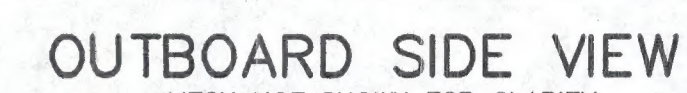
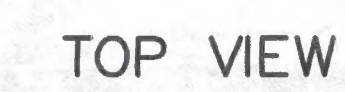
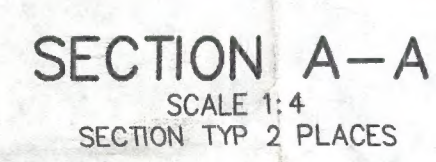
REV.	DESCRIPTION OF CHANGE	INITIALS	DATE
0	INITIAL ISSUE		
1	TITLE BLOCK UPDATED; CHANGED 36273-01 TO 84263-01; ITEM #S ADDED WELDING ROD UPDATED; # OF WELDS DOWN BRACE TUBES INCREASED	BjC	10/07/2014



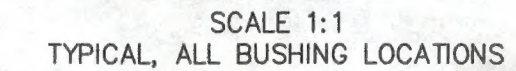
1. THIS DRAWING IS A MODIFICATION TO INCORPORATE OPENINGS IN THE LID TO PROVIDE ACCESS PORTS FOR SURVEY EQUIPMENT. REMAINDER OF CONSTRUCTION REMAINS IN ACCORDANCE WITH DRAWING 94012, REVISION 1.
2. LID MAY BE MODIFIED WITH A WALKWAY ON THE UNMODIFIED BAYS IN ACCORDANCE WITH DRAWING 70405, REVISION 4, AND MAY BE ALIGNED WITH THE CUTOUT SUPPORTS.
3. COVERS (05) TO BE INSTALLED USING AN3 BOLTS, NAS1149F0363P WASHERS, MS21044N3 NUTS IN ALL LOCATIONS PROVIDED AFTER FINISH IS APPLIED.
4. REMOVE ALL BURRS AND BREAK SHARP EDGES
5. PRIOR TO WELDING, DRILL #30 (0.129) VENT HOLES IN ASSEMBLY FOR VENTING OF WELD GASES. WHEN ASSEMBLY IS COMPLETE, FILL ALL EXPOSED VENT HOLES WITH ROSETTE WELD.
6. WELDING OF 4130 STEEL TO BE COMPLETED BY GTAW METHOD TO AMS 2685C.
4130 AND 1018 STEEL: WELDING ROD SHALL CONFORM TO ER70S-2 OR EQUIVALENT.
7. THOROUGHLY DEGREASE AND POWDER COAT BASKET ASSEMBLY AFTER WELDING.
THOROUGHLY DEGREASE AND POWDER COAT COVERS.

12	MS21044N3	NUT				
24	NAS1149F0363P	WASHER				
12	AN3-12A	BOLT				
2	84263-01	05 COVER				
12	94092-04	04 BUSHING	6061-T6 ALUMINUM	QQ-A-250/11	0.050 SHEET	
A/R	3/4 - 16F	03 MESH	4130 STEEL COND. N	MIL-T-6736	0.313 X 0.058 RND TUBE	
A/R	---	02 SQUARE TUBE	MILD STEEL	COMMERCIAL		
	94092-01	01 LID ASSEMBLY	4130 STEEL COND. N	MIL-T-6736	0.75 X 0.035 SQR TUBE	
	PART NO.	ITEM	DESCRIPTION	MATERIAL	MATERIAL SPEC	STOCK SIZE
QTY	LIST OF MATERIALS					

APPROVALS	DATE	 AERO DESIGN LTD. 9888A MALASPINA ROAD POWELL RIVER, BC, CANADA, V8A 0G3 TEL: 604.483.2376 www.aerodesign.ca			
DRAWN: JEFF CLARKE	03 JAN 2015				
CHECKED: JASON REKVE	<i>02 Jan 2016</i>				
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES. TOLERANCES ON: DECIMALS ANGLES X.XXX ±0.010 ±1/2" X.XX ±0.03 X.X ±0.1		AIRBUS HELICOPTERS AS350 & AS355 SERIES WICK RELEASE CARGO BASKET LID ASSEMBLY <i>MODIFICATION JC</i>			
SCALE 1 : 4 SHEET 1 OF 1		DWG. SIZE	DWG. NO.	REV.	
		A1	94092	0	


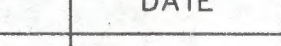


(01) BASKET BODY ASSEMBLY



1. THIS DRAWING IS A MODIFICATION TO INCORPORATE OPENINGS IN THE BASKET TO PROVIDE VIEW PORTS FOR SURVEY EQUIPMENT. REMAINDER OF CONSTRUCTION REMAINS IN ACCORDANCE WITH DRAWING 94011, REVISION 1.
2. LOAD TESTING IN ACCORDANCE WITH ENGINEERING REPORT ER940.91, REVISION 0, MUST BE COMPLETED TO DEMONSTRATE STRUCTURAL STRENGTH OF THE MODIFIED ASSEMBLY.
3. COVERS (05, 06, 07) TO BE INSTALLED USING AN3 BOLTS, NAS1149F0363P WASHERS, MS21044AN3 NUTS IN ALL LOCATIONS PROVIDED AFTER FINISH IS APPLIED.
4. REMOVE ALL BURRS AND BREAK SHARP EDGES
5. PRIOR TO WELDING, DRILL 430 (0.129) VENT HOLES IN ASSEMBLY FOR VENTING OF WELD GASES. WHEN ASSEMBLY COMPLETE, FILL ALL EXPOSED VENT HOLES WITH ROSETTE WELD.
6. WELDING OF 4130 STEEL TO BE COMPLETED BY GTAW METHOD TO AMS 2685S.
4130 AND 1018 STEEL: WELDING ROD SHALL CONFORM TO ER70S-2 OR EQUIVALENT.
7. THOROUGHLY DEGREASE AND POWDER COAT BASKET ASSEMBLY AFTER WELDING.
THOROUGHLY DEGREASE AND POWDER COAT COVERS.

38	MS21044N3	NUT				
76	NAS1149F036P	WASHER				
8	AN3-10A	BOLT				
2	AN3-11A	BOLT				
4	94091-07	END COVER	6061-T6 ALUMINUM	QQ-A-250/11	0.050 SHEET	
2	94091-06	BOTTOM COVER	6061-T6 ALUMINUM	QQ-A-250/11	0.125 SHEET	
2	94091-05	TOP BOTTOM COVER	6061-T6 ALUMINUM	QQ-A-250/11	0.125 SHEET	
A/R	3/4-16F	MESH	MILD STEEL	COMMERCIAL		
8	84272-01	03 BUSHING	4130 STEEL COND. N	MIL-T-6736	0.313 X 0.058 RND TUBE	
A/R	84272-01	02 SQUARE TUBE	4130 STEEL COND. N	MIL-T-6736	0.5 X 0.035 SQR TUBE	
	94091-01	01 BASKET BODY ASSEMBLY				
01	PART NO.	ITEM	DESCRIPTION	MATERIAL/NOTE	MATERIAL SPEC	STOCK SIZE
QTY				LIST OF MATERIALS		

APPROVALS		DATE			AERO DESIGN LTD.			
DRAWN:	JEFF CLARKE		03 JAN 2016		988BA MALAYSIA PRD. POWELL RIVER, BC, CANADA, V9A 0G3 TEL: 604-663-9779 www.aerodesign.ca			
CHECKED:	JASON REKVE							
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES. TOLERANCES ON:					AIRBUS HELICOPTERS AS350 & AS355 SERIES QUICK RELEASE CARGO BASKET BASKET BODY MODIFICATION			
DECIMALS		ANGLES						
X.XXX	±0.010		±1/2°					
X.XX	±0.03							
X.X	±0.1							
SCALE 1 : 4		DWG. SIZE		DWG. NO.		REV.		
SHEET 1 OF 1		AO		94091		0		